



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/722,760	11/27/2000	Eduard Michel	1999DE132	4985

25255 7590 05/01/2002

CLARIANT CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
4000 MONROE ROAD  
CHARLOTTE, NC 28205

EXAMINER
----------

NOTE, JANIS L

ART UNIT	PAPER NUMBER
----------	--------------

1756

DATE MAILED: 05/01/2002

7

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-7

# Office Action Summary

Application No.

09/722,760

Applicant(s)

MICHEL et al

Examiner

J. DOTE

Group Art Unit

1756

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☒ Responsive to communication(s) filed on 3/5/02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1 - 15 is/are pending in the application.
- Of the above claim(s) 12, 13 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1 - 11, 14, 15 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some\* ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2 & 3
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

1. This Office action is responsive to applicants' response filed in Paper No. 6 on Mar. 5, 2002.

2. Applicants' election of species without traverse in Paper No. 6 has been noted. The examiner acknowledges the elected species, an electrophotographic toner or developer, and the elected ultimate species of invention, distearyldimethyl ammonium bentonite in preparation example 1 on pages 30-31 of the instant specification. Applicants indicate that claims 1-6, 9, 10, 14, and 15 read on the ultimate elected species.

Claims 7, 8, 11, 12, and 13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

3. The elected ultimate species of invention, an electrophotographic toner or developer comprising distearyldimethyl ammonium bentonite is allowable over the prior art of record. The prior art does not teach or suggest such a toner or developer comprising distearyldimethyl ammonium bentonite.

4. The following rejections have been made pursuant to the examiner's selection of the next species for examination, as set forth in the rejections in paragraphs 11-13, infra. Accordingly, claims 1-11, 14, and 15 have been considered. Claims 12 and 13 are still withdrawn from consideration as being drawn to a nonelected species, there being no allowable generic or linking claim. Claims 12 and 13 do not read on the next elected species.

5. The disclosure is objected to because of the following informalities:

(1) The specification at page 13, lines 6, identifies the groups  $A_1^\alpha$  and  $A_3^\alpha$  as  $-COO^\alpha$ ,  $-SO_3^\alpha$ ,  $-OSO_3^\alpha$ ,  $-COS^\alpha$ , or  $-CS_2^\alpha$ . However, formulas (a) through (j) do not comprise said groups, but comprise the groups  $A_1^-$  and  $A_1^+$ . Furthermore, it is not clear what is meant by the superscript " $\alpha$ ".

(2) The use of trademarks, e.g., Tonsil [sic: TONSIL] at page 8, line 30, has been noted in this application. The trademarks should be capitalized wherever they appear and be accompanied by the generic terminology. This example is not exhaustive. Applicants should review the entire specification for compliance.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be

respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Appropriate correction is required.

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

(1) In claim 1, the recitation "a method of imparting, controlling or improving the charge of . . ." lacks antecedent basis in the specification.

(2) In claim 1, the recitation "electret fiber material" (emphasis added) lacks antecedent basis in the specification. See page 8, line 5, of the specification, which discloses "electret materials."

(3) In claim 8, the recitation "triazacyclononanium or tetraaza-cyclododecanium" lacks antecedent basis in the specification. See page 14 of the specification.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite in the phrase "method . . . comprising the step of adding a salt-like structured silicate . . . to an electrostatic separation process" because it is not clear what is being electrostatically separated.

Claim 5 is indefinite for the following reasons:

(1) The phrase "X has the meaning of Y and -CO-CH<sub>2</sub>-CO . . ." (emphasis added) is indefinite because it is not clear how X can be more than one identity at once, as presently defined.

(2) The phrase "heteroatoms from the group consisting of N, O, S or a combination thereof" (emphasis added) is indefinite for improper Markush language. Proper Markush language would be "R is selected from the group consisting of . . . and . . ." or "R is . . . or . . ." MPEP 2173.05(h) (8th edition, Aug. 2001). Applicants are using a combination of both phrases. Thus, it is not clear what is the scope of the instant claim.

(3) The phrase "A<sub>1</sub><sup>α</sup> and A<sub>3</sub><sup>α</sup> represent -COO<sup>α</sup>, -SO<sub>3</sub><sup>α</sup>, -OSO<sub>3</sub><sup>α</sup>-, -COS<sup>α</sup>, or -CS<sub>2</sub><sup>α</sup>" is indefinite because formulas (a) through (j) do not comprise said groups, but comprise the groups A<sub>1</sub><sup>-</sup> and A<sub>1</sub><sup>-</sup>. Furthermore, it is not clear what is meant by the superscript "α".

Claim 7 is indefinite in the phrase "it being possible for 2 to 8 rings to be fuse" because it is not clear whether the rings are fused or not.

Claim 10 is indefinite in the phase "the metal is Al, . . . and ZrO" for improper Markush language. Proper Markush language would be "R is selected from the group consisting of . . . and . . ." or "R is . . . or . . ." MPEP 2173.05(h) (8th edition, Aug. 2001). Applicants are using a combination of both phrases. Thus, it is not clear what is the scope of the instant claim.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 1-6, 9, 10, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,807,629 (Elspass), as evidenced by US 5,385,776 (Maxfield).

Elspass discloses a dried powder comprising 72 wt% of a styrene-butadiene rubber binder resin and 28 wt% of a layered material, BENTONE-34, a dialkylammonium montmorillonite, sold by Rheox, Inc. See example 1 at cols. 3 and 4. (The weight percentages are determined from the data in Example 1). Elspass adds BENTONE-34 to the binder resin dissolved in a solvent. Maxfield identifies BENTONE-34 as a montmorillonite whose native interlayer cations were ion-exchanged for dimethyldioctadecylammonium cation. Maxfield, col. 13, line 34, to col. 14, line 3. BENTONE-34 meets the "salt-like structured silicate" limitation recited in instant claims 1-6, 9, 10, and 14. Elspass's dried powder meets the limitations recited in instant claim 14.

Elspass does not disclose that the addition of BENTONE-34 imparts, controls, or improves the charge of the powder as recited in instant claim 1. However, as discussed above, BENTONE-34 meets the "salt-like structured silicate" limitation recited in the instant claims. Accordingly, it is reasonable to presume that Elspass's addition of BENTONE-34 has the effects recited in instant claim 1. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).



12. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elspass, as evidenced by Maxfield.

Elspass, as evidenced by Maxfield, discloses a dried powder as described in paragraph 11, which is incorporated herein by reference. Elspass discloses that the amount of the layered material BENTONE-34 added to the binder resin will vary widely depending upon the intended use of the composite. Elspass discloses that preferably the amount of the layered material will be from 1 to 25 % by weight of the composite. Col. 2, line 64, to col. 3, line 9. The amount of 1 % by weight is within the range of 0.05 to 20% by weight of the salt of ionic structured silicate recited in instant claim 15.

It would have been obvious for a person having ordinary skill in the art, in view of Elspass's teachings, to adjust the amount of BENTONE-34 in example 1, such that the amount is 1 % by weight, because that person would have had a reasonable expectation of successfully obtaining a dried powder comprising an elastomeric nanocomposite having sufficiently low air permeability as taught by Elspass. Elspass, col. 1, lines 61-67.

13. Claims 1-11, 14, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,404,270 (Higashida).

Higashida discloses adding mica as a charge control agent to the binder resin of a toner. Higashida discloses a toner


comprising 96 wt% of a binder resin, 1 wt% of a colorant, and 3 wt% of mica, as a charge control agent. See example 1 at cols. 3 and 4. Higashida discloses that the mica can be muscovite, phlogopite, lepidolite, etc. Col. 2, lines 45-50. Muscovite, phlogopite, and lepidolite disclosed at col. 2 of Higashida meet the "salt-like structured silicate" limitation recited in instant claims 1-11, 14, and 15.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (703) 308-3625. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (703) 308-2464. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311 (Rightfax) for after final faxes, and (703) 872-9310 for other official faxes.

Any inquiry of papers not received regarding this communication or earlier communications, or of a general nature or relating to the status of this application or proceeding should be directed should be directed to the Customer Service Center of Technology Center 1700 whose telephone number is (703) 306-5665.

JLD  
April 29, 2002

  
JANIS L. DOTE  
PRIMARY EXAMINER  
GROUP 1500  
1700